

Wednesday, February 08, 2017 10:18:38 AM

Page 1

NS1

NS2

4

4

Customer:

Reference:

NR1

NR2

[illegible]

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY					
Environment	☐	No Re-verification	Pressure/Forced	☐	Temperature/Cure	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	Bending	☐	Set-up	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	Centre Not Concentric	☐	BOM/Route	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	Cracks	☐	Broken/Damage/Defect	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	Cuffs	☐	Contamination	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	Crushing	☐	Countersink	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	Heat Treat	☐	Cut Too Short	Mislabeled	☐	Finish
LOA	☐	Product Improvement	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	Fit/Function	☐	Misread
Substation	☐	Process Improvement	Marks/Chatter	☐	Drill Holes	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____					
Misidentified	☐	Past Due						

156962

Wednesday, February 08, 2017 10:18:38 AM

N900040100

Setup Start *NS1*

Stop *NS2*

4

Cust Item ID:

Start Date: 1/30/2017 **Start Qty:** 4.00

Required Date: 2/8/2017 **Req'd Qty:** 4.00

4

Customer:

Reference:

Run Start *NR1*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop *NR2*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

120 QC8- Inspect parts - second check

0.00

120

0.00

QC

Memo

Quality Control

DAS
38
9-00
FEB 21 2017

130 Weld per dwg A/R S.S. rod Batch: M13442 0.00

0.00

130

0.00

Large Fab

Memo

Large Fab

1-Weld D3009-3 cups as per dwg D3565

using DT8991 jig

2-WELD HARDCOAT

2059B HARDCOAT BATCH: MB2339

140	QC9- Inspect visual per QSI004- Fusion Welds	0.00
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0.00

140

0.00

OC

Memo

Quality Control

④ DYC
17/03/30

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

156962

Wednesday, February 08, 2017 10:18:38 AM

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Start Date: 1/30/2017 **Start Qty:** 4.00 ***4***

Required Date: 2/8/2017 **Req'd Qty:** 4.00 ***1***

Customer:

Reference:

Approvals: **Process Plan:** **Date:** **Tooling:** **Date:**

Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Insp. Stamp

0.00

150

OC

Memo

0.00

Quality Control

0.00

160

Powdercoat

Memo

0.00

Powder Coating

START TIME:

2018. FINISH TIME:

OVEN TEMPERATURE:

0.00

170

OC

Memo

0.00

Quality Control

APR 05 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Work Order ID 156962***156962***

Page 4

Wednesday, February 08, 2017 10:18:38 AM

Item ID: D3565-1

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Wearplate

Start Date: 1/30/2017 Start Qty: 4.00 ***4***

Cust Item ID:

Required Date: 2/8/2017 Req'd Qty: 4.00 ***4***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
180	Identify as per dwg & Stock Location ST-185	0.00							
180									
Packaging	Memo	0.00				4X	DAS 26 9-89		APR 06 2017
Packaging									
190	QC21- Final Inspection - Work Order Release	0.00							
190									
QC	Memo	0.00							17/4/10
Quality Control									

DAS 21 9-89 **APR 06 2017**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
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Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	Pressure/Forced ☐	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	☐ Offset/Setup	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	☐ Supplier	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	☐ Training	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	☐ Use for Testing	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	☐ Poor Information	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	☐ Rushing	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	☐ Product Improvement	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	☐ Process Improvement	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Picklist Print

Wednesday, February 08, 2017 10:18:37 AM

Page 1
T

Work Order ID: 156962

156962

Parent Item: D3565-1

D3565-1

Parent Item Name: Wearplate

Start Date: 1/30/2017

Required Date: 2/8/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev :A New Issue 07-01-16 JLM
IPP rev B revB dwg 07.04.18 ec
IPP Rev:C rev.c as per dwg 08-01-14 DD verified by:
IPP Rev: D QCS added to step 8 08.12.22 KJ Verified by:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D3009-3

Manufactured

No

100

Each

61.0000

3

12

D3009-3

**

DYC 17/03/30

Cup

Location

Loc Qty

Loc Code

WA002

61

155084

1

156118

60

M304S16GA

Purchased

No

130

sf

74.3900

0.135

0.568421

M304S16GA

**

02/17/02/17

304/316 Sheet .063

Location

Loc Qty

Loc Code

MAT010

74.39

m134604

5

m136036

5.39

m136327

7.1

m136687

56.9

136790

.7

DQA: _____ Date: _____



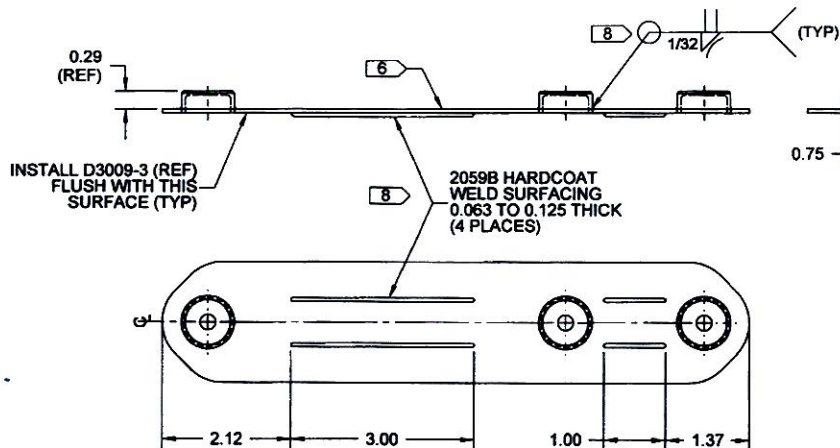
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

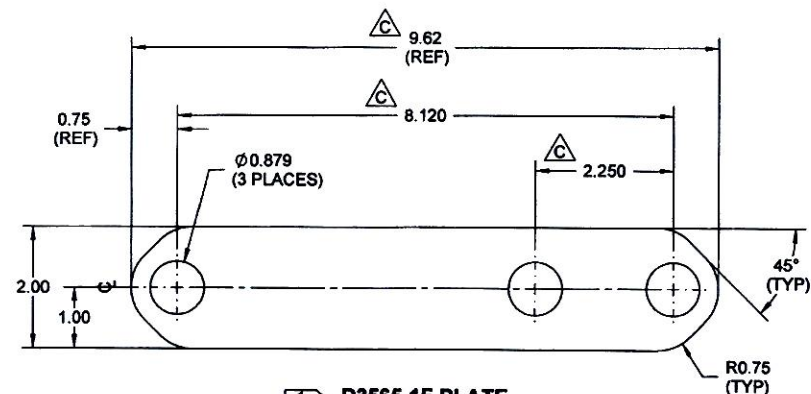
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
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LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						



D3565-1 R44 WEARPLATE



D3565-1F PLATE

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 1576962

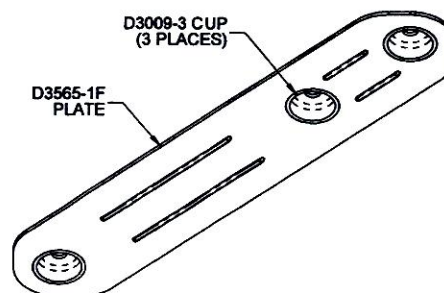
RELEASED
06-01-11/17

D3565-1 PARTS LIST

QTY	P/N	DESCRIPTION
X	D3565-1	R44 WEARPLATE
1	D3565-1F	PLATE
3	D3009-3	CUP

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET, 16 GAUGE (0.063 THICK) PER MIL-S-5059 (ANNEALED) 2B FINISH (REF. DART SPEC. M304S16GA)
- 2) FINISH: POWDER COAT "GREY SANDTEX" (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3565-1" AND B/N "BXXXXX" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.38 lbs
- 8) WELD PER DART QSI 004
- 9) PART IS SYMMETRIC ABOUT C



C	WEARPLATE NOW WELDED (C7); 8.120 WAS 8.220, 2.250 WAS 2.300 (D2); ADDED PARTS LIST (B7); UPDATED NOTES (A7)	MB	07.12.14
B	8.220 WAS 8.120; 2.300 WAS 2.250; ADD HOLE DIMS AFTER CUP FORMING	CB	07.03.12
A	NEW ISSUE	CB	07.01.09
REV.	DESCRIPTION	BY	DATE
DESIGN	CB		
DRAWN	JP		
CHECKED	JP		
MFG. APPR.	JP		
APPROVED	JP		
DE APPR.	JP		
DATE	07.12.14		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3565** REV. C
TITLE **R44 WEARPLATE** SCALE 1:2

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